

**UNIVERSITI TEKNOLOGI MARA**

**AN EXPERIMENT ON THE FACTORS AFFECTING THE  
AWARENESS SCORE OF AUTISM – A CASE STUDY AMONG  
UiTM SEREMBAN STUDENTS**

**MUHAMMAD UZEIRRAHIMI BIN MOHAMAD (2016571849)  
AINI LATEEFA BINTI SHAHROL AZMAN (2016317303)  
NURUL FARHANA BINTI JAAFAR (2016341025)**

Final Year Project Submitted in Partial Fulfillment of the Requirements  
for the Degree of

**BACHELOR OF SCIENCE (HONS.) STATISTICS**

**FACULTY OF COMPUTER AND MATHEMATICAL SCIENCES**

**JULY 2019**

## ABSTRACT

Autism Spectrum Disorder is a complex neurobehavioral condition that includes problems with social intercourse, language development, repetitive behaviours and communicative skills. Autism is not a newly found subject of discussion but most of the people do not know deeply on the topic. The people often misunderstand autism which will lead to significant problems such as isolation, bullying and many more. Hence, this research aims to raise awareness on autism which uses a Three Factorial Randomized Complete Block Design experiment design with longitudinal survey on 72 students from Universiti Teknologi MARA Cawangan Negeri Sembilan Kampus Seremban. The first objective is to compare the awareness score of autism before and after the experiment by using dependent t-test. The second objective is to determine if there is any significant interaction between genders, faculties and methods of message delivery on awareness of autism by using analysis of variance. This research has found that there is a significant difference on the mean awareness score of autism before and after the experiment which means the experiment was effective on raising the awareness on autism. Besides that, this research has found that the three factor and two factor interactions are not significant on the awareness of autism. However, methods and gender alone are significant in explaining the factors affecting awareness score on autism. Based on the results, female are more aware of autism than male before the experiment. Other than that, the best method of message delivery found to be effective in spreading the awareness of autism is article. Video and audio shows second and third respectively in the effectiveness of spreading awareness of autism.

## **ACKNOWLEDGEMENT**

IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL

Firstly, we are grateful to Allah S.W.T for giving us the strength to complete this project successfully without any obstacles.

Secondly, we would like to express gratitude to our supervisor, Madam Nor Akmal binti Md Noh for guiding us with this project throughout the whole semester. She has been helpful by supervising us and giving her opinions on the topic of discussion.

Thirdly, we would like to thank our final year project head panel, Madam Che Norhalila binti Che Mohamed. She has been very helpful by guiding us throughout the semester with our final year project format and contents.

Fourthly, we would like to thank our language editor, Madam Tuan Sarifah Aini binti Syed Ahmad. She was very helpful and kind lecturer that helped us with our language.

Fifthly, we would like to thank our friends and families for giving us the motivation to continue with the project when we were at our worst moments. Our friends and families helped us lift our mood when we needed it.

**MUHAMMAD UZEIRRAHIMI BIN MOHAMAD  
AINI LATEEFA BINTI SHAHROL AZMAN  
NURUL FARHANA BINTI JAAFAR**

## TABLE OF CONTENTS

TOPIC	PAGE
ABSTRACT	i
ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF ABBREVIATION	vii
LIST OF APPENDICES	viii
<b>CHAPTER 1: INTRODUCTION</b>	
1.1 Introduction	1
1.2 Problem Statement	2
1.3 Research Question	3
1.4 Research Objective	3
1.5 Research Hypothesis	4
1.6 Scope of Study	4
1.7 Limitations of Study	4
1.8 Significance of Study	5
1.9 Specific Terms Used in the Experiment	5
<b>CHAPTER 2: LITERATURE REVIEW</b>	
2.1 Introduction	7
2.2 Awareness Score on Autism	7
2.3 Awareness among Student	8
2.4 Factors Affecting the Awareness Score of Autism	8
2.4.1 Gender	8
2.4.2 Faculty	9

	2.4.3 Message on Awareness of Autism Delivery	9
	Methods	
	2.5 Relation to Autistic	12
<b>CHAPTER 3:</b>	<b>METHODOLOGY</b>	
	3.1 Introduction	13
	3.2 Research Design	13
	3.3 Population and Sample	13
	3.4 Research Instrument	14
	3.5 Data Collection Methods	14
	3.6 Theoretical Framework	15
	3.7 Experimental Design: Three Factorial Randomized	16
	Complete Design (RCBD)	
	3.7.1 Linear Statistical Model	16
	3.7.2 Data Structure	17
	3.7.3 Experiment Design	17
	3.8 Methods of Analysis	22
	3.8.1 Analysis of Variance (ANOVA)	22
	3.8.2 Multiple Comparison test (Tukey's test)	25
	3.8.3 Model Adequacy Checking	25
	3.8.4 Dependent t-test	26
	3.8.5 Wilcoxon Matched-Pairs Signed-Ranks	27
	Tests	
<b>CHAPTER 4:</b>	<b>RESULTS AND DISCUSSION</b>	
	4.1 Introduction	28
	4.2 Pilot Study	28
	4.3 Comparing Means Between Two Dependent Samples	28
	4.3.1 Normality Assumption	28